
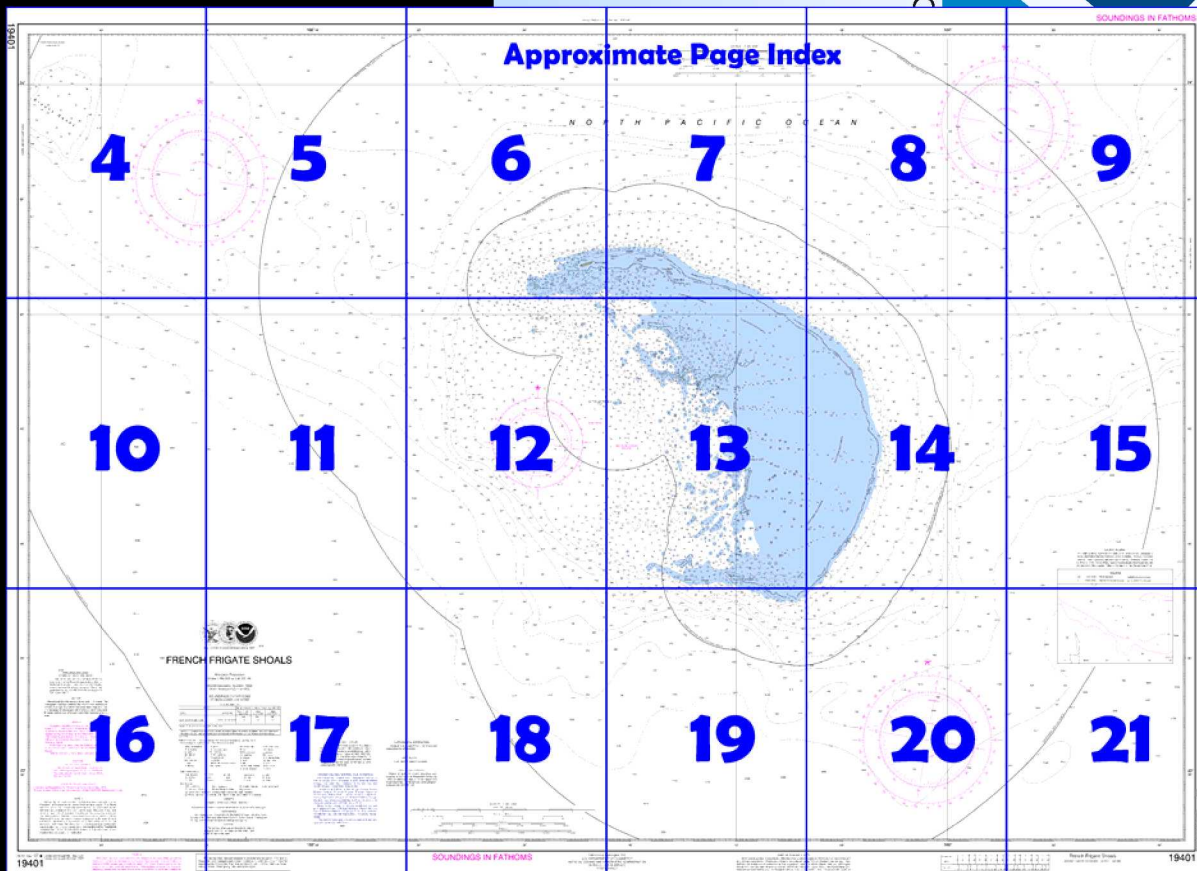
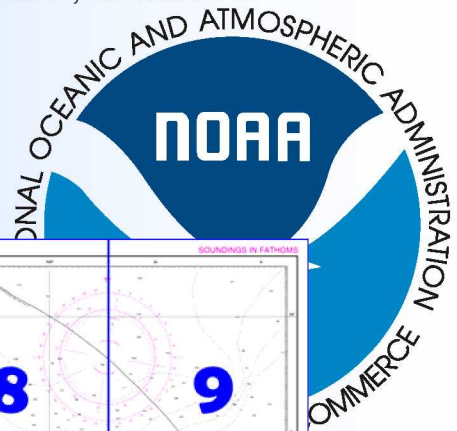


TM

 French Frigate Shoals
Necker Island

Included Area

- ✓ Complete, reduced scale nautical chart
- ✓ Print at home for free
- ✓ Convenient size
- ✓ Up to date with all Notices to Mariners
- ✓ United States Coast Pilot excerpts
- ✓ Compiled by NOAA, the nation's chartmaker.



Home Edition (not for sale)



What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

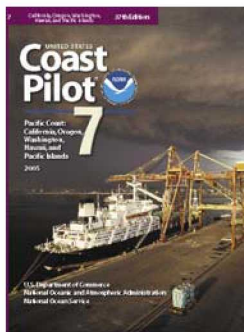
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 7, Chapter 14 excerpts]

(907) **French Frigate Shoals**, about 85 miles W from Necker Island, is a crescent-shaped atoll about 17 miles long in a NNW direction. It was discovered by La Perouse on November 6, 1786, the day after leaving Necker Island, and like that island, was annexed to Hawaii in 1895. The atoll consists of a coral reef with a number of small, bare, sand islets on it, and is flanked by a volcanic rock and numerous coral heads and reefs. It is home to many sea birds, seals, turtles and

other fish and wildlife all protected by Federal Law.

(908) **La Perouse Pinnacle** and **Tern Island** are the best landmarks. The other islands are of little assistance in navigation due to their constantly changing size and shape and low elevations. **Shark Island** has been observed to be particularly unreliable in this regard.

(909) The crescent reef is double, and the outer and inner arcs bound a lagoon that is 1 to 6 miles wide. At its midpoint the windward reef lies about 8 miles from a line joining the tips of the crescent; the leeward reef is about 5 miles from this line. The windward reef is nearly continuous and can be plainly seen in the daytime for a considerable distance by vessels approaching from the N, E or SE. The sea practically always breaks over the reef, and during the few times it is not breaking, the green shoal water inside the reef is seen in ample time to avoid danger. The bottom slopes uniformly from the reef to the 100-fathom curve 1 to 2 miles off, and there are no known dangers from N through E to S of the windward reef.

(910) The leeward or inner reef, however, is broken in many places and in normal weather is seldom marked by breakers. The lagoon between the reefs is very foul with numerous coral heads, some just under the surface of the water.

Table of Selected Chart Notes

Corrected through NM May 05/07
Corrected through LNM Apr. 24/07

HEIGHTS
Heights in feet above Mean High Water.

Mercator Projection
Scale 1:80,000 at Lat 23° 44'

World Geodetic System 1984
(North American Datum of 1983)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

HORIZONTAL DATUM
The horizontal reference datum of this chart is World Geodetic System 1984 (WGS 84), which for charting purposes is considered equivalent to the North American Datum of 1983 (NAD 83). The projection of this chart was shifted from a local datum by means of georeferenced satellite imagery and has not been confirmed by land-based geodetic methods.

SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 7 for important supplemental information.

NOTE C
SHIP REPORTING SYSTEM
The following vessels entering or departing any U.S. port of place and in transit through the reporting area are required to report into the System: all vessels 300 gross tons or greater and all vessels in the event of a developing emergency. The following vessels in transit through the reporting area should report into the System: all vessels 300 gross tons or greater, fishing vessels, and all vessels in the event of a developing emergency. See IMO SN.1, Circ. 273. Information concerning the Ship Reporting System is also published in the U.S. Coast Pilot 7, Chapters 2 and 14, and updated through Notices to Mariners. Information may also be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, or at the Office of the District Engineer, Corps of Engineers, in Honolulu.

NOTE B
AREA TO BE AVOIDED
All vessels solely in transit should avoid the area (MSC IMO SN.1/Circ.263).

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, Hawaii or at the Office of the District Engineer, Corps of Engineers in Honolulu, Hawaii.
Anchorage regulations may be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, Hawaii.
Refer to section numbers shown with area designation.

Additional information can be obtained at nauticalcharts.noaa.gov.

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the U.S. Coast Guard, Geological Survey, and National Geospatial-Intelligence Agency.

NOTE X
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

COLREGS, 80.1410 (see note A)
International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

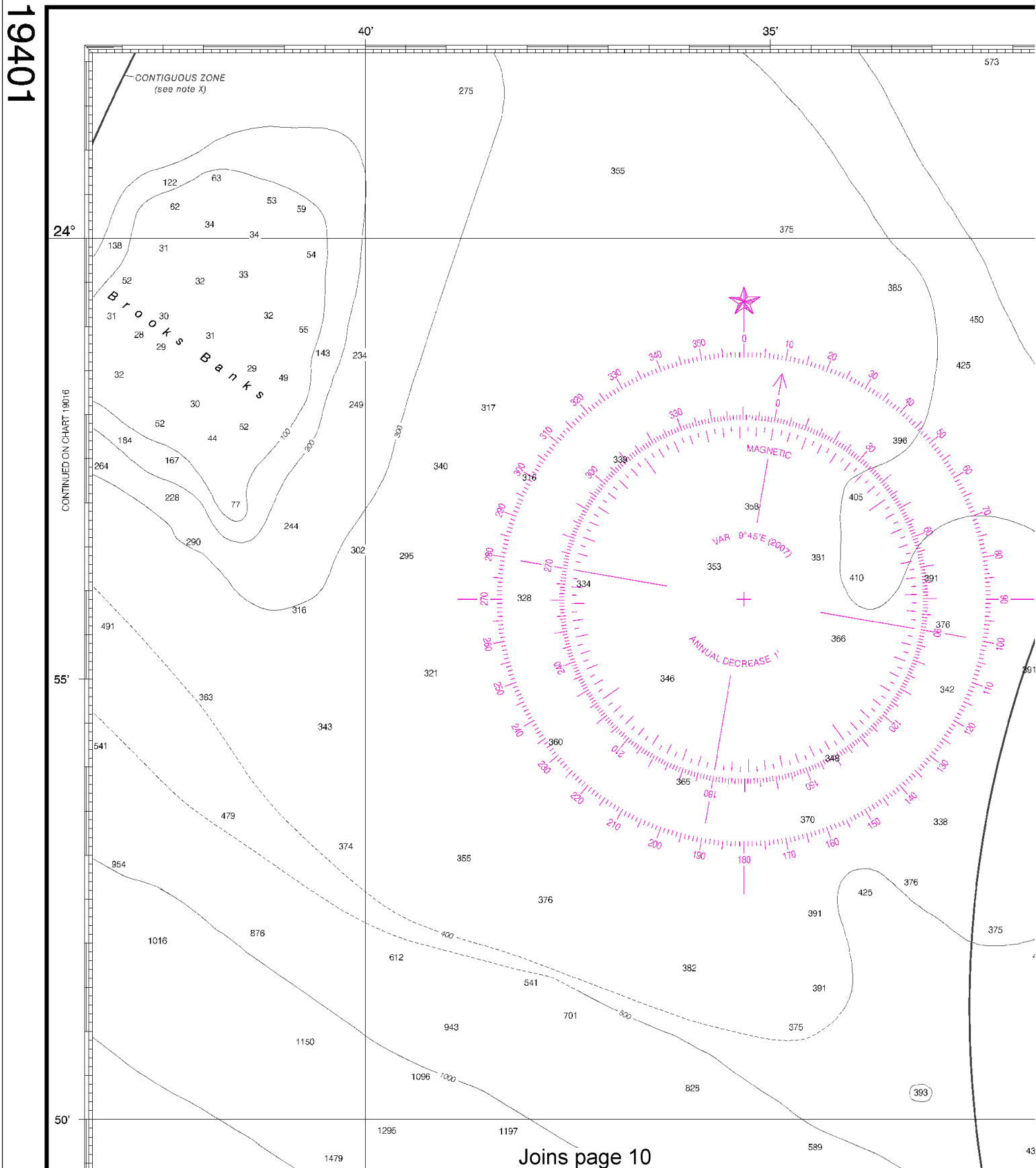
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

TIDAL INFORMATION				
PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
East Island Frigate Shoals	(23°47' N/166°13' W)	feet 1.4	feet 1.1	feet 0.2
NOTE: Chart was last revised: 4/92, 10/99, 12/02				
Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov . (Apr 2007)				

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
Aids to Navigation (lights are white unless otherwise indicated):
AERO aeronautical G green Mo morse code R TR radio tower
Al alternating IQ interrupted quick N nun Rot rotating
B black Iso isophase OBSC obscured s seconds
Bn beacon LT HO lighthouse Oc occulting SEC sector
C can M nautical mile Or orange St M statute miles
DIA diaphone m minutes VQ very quick
F fixed MICRO TR microwave tower R red W white
Fl flashing Mkr marker Ra Ref radar reflector WHIS whistle
R Bn radiobeacon Y yellow
Bottom characteristics:
Bds boulders Co coral g/ gray Oys oysters so soft
bk broken G gravel h hard Rk rock Sh shells
Cy clay Grs grass M mud S sand sy sticky
Miscellaneous:
AUTH authorized Obstr obstruction PD position doubtful Subm submerged
ED existence doubtful PA position approximate Rep reported
(1) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

PRINT-ON-DEMAND CHARTS
NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.

19401



4

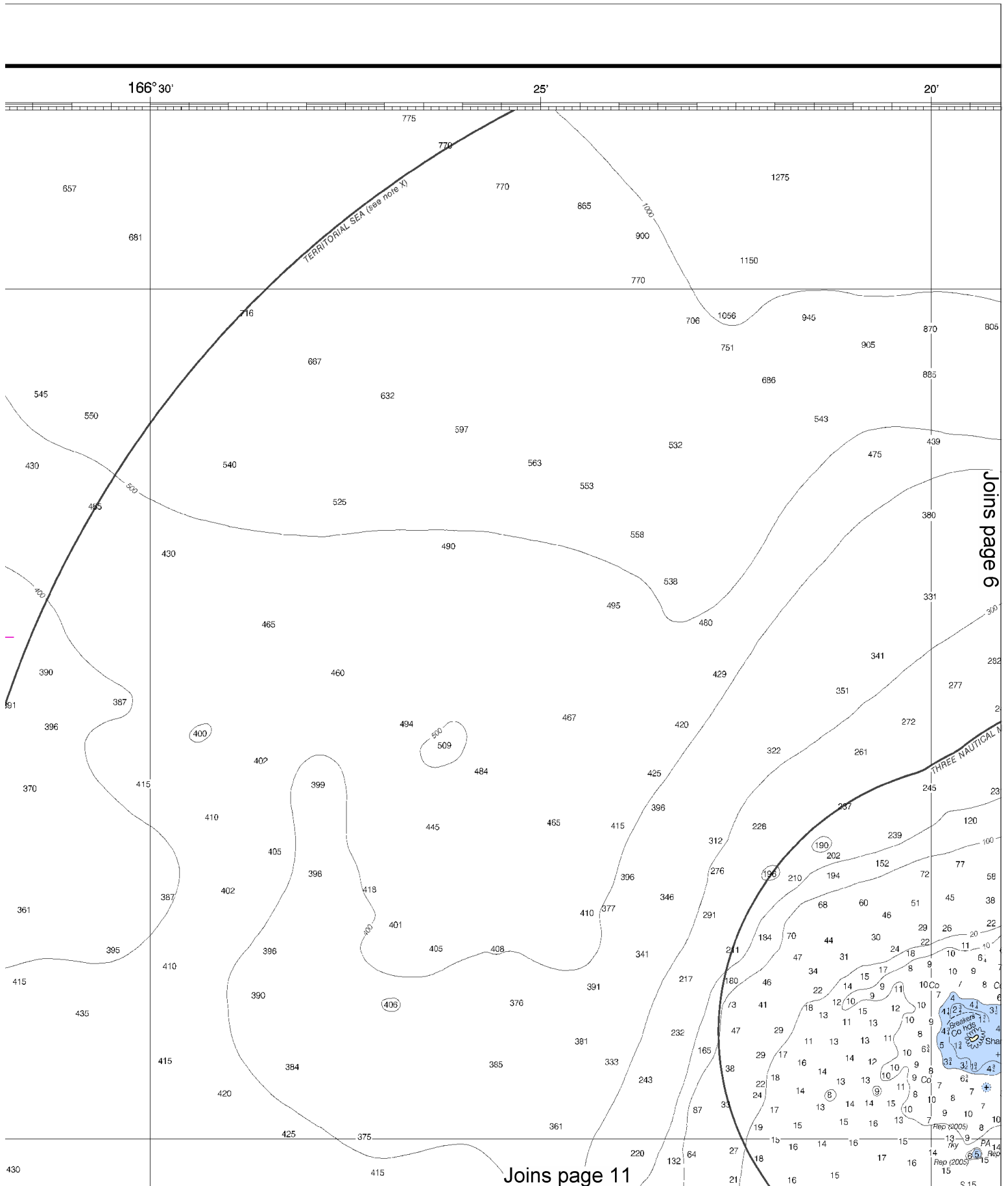


Printed at reduced scale.

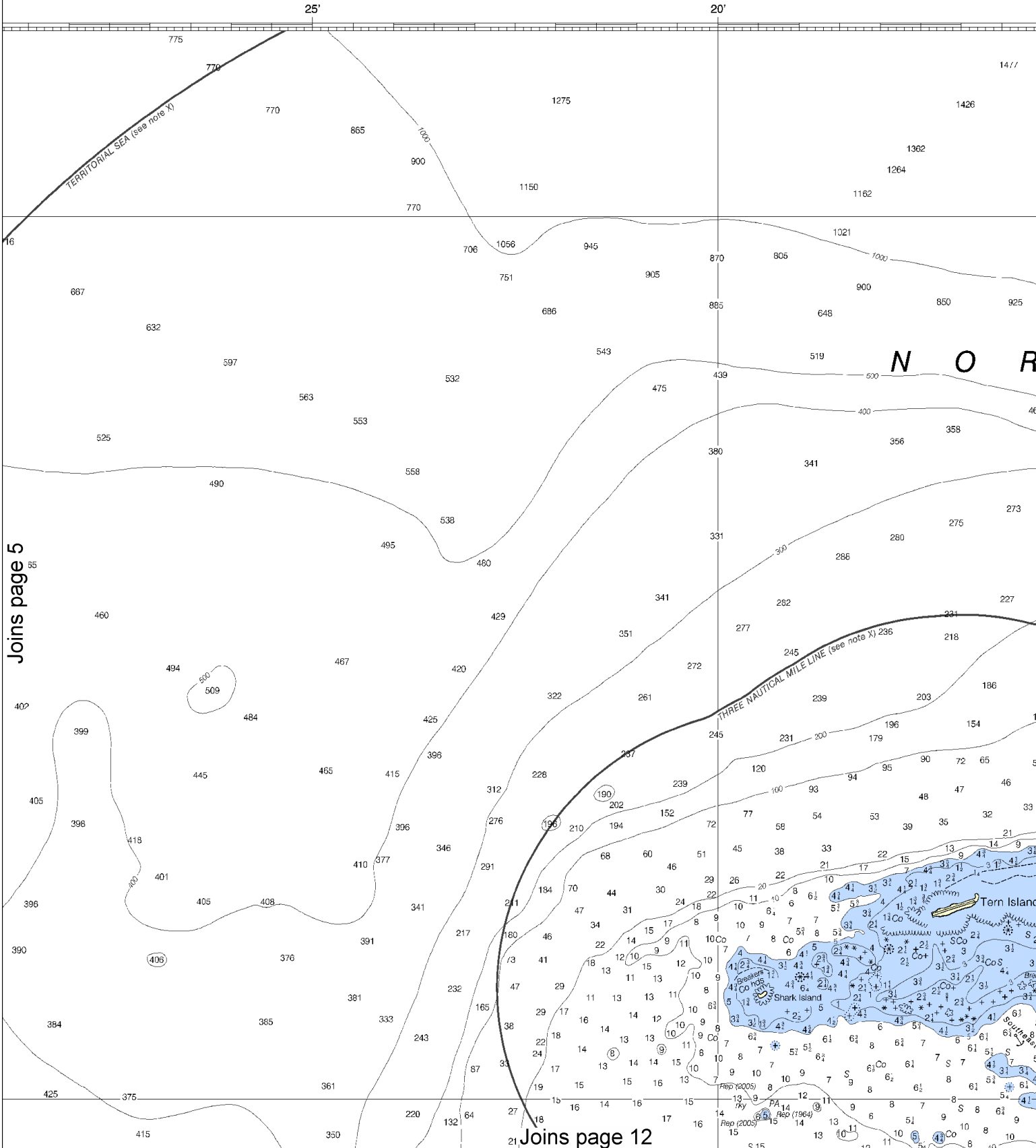
SCALE 1:80,000

See Note on page 5.





This BookletChart was reduced to 75% of the original chart scale.
 The new scale is 1:106667. Barscales have also been reduced and
 are accurate when used to measure distances in this BookletChart.



Joins page 5

Joins page 12

6



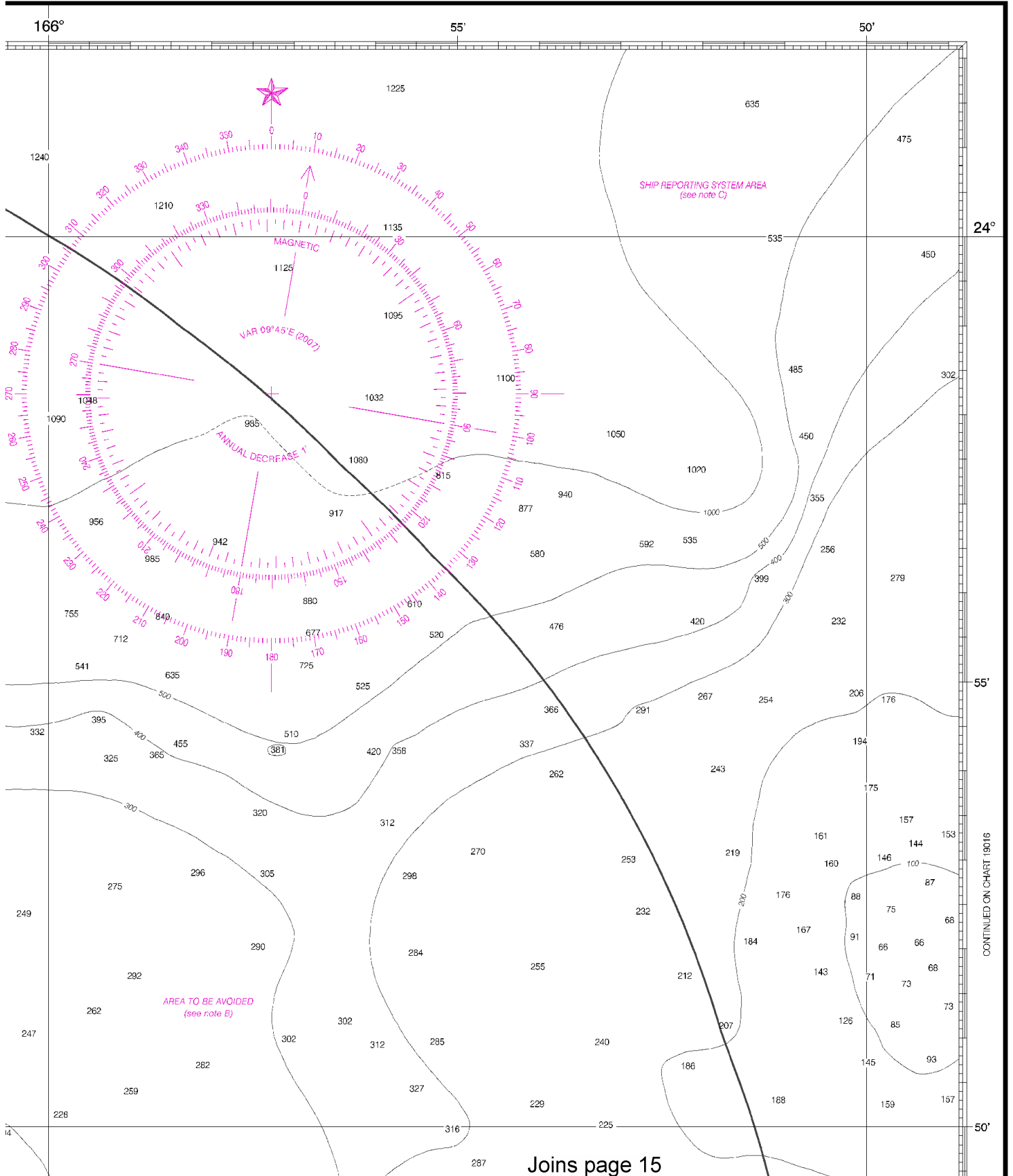
Printed at reduced scale.

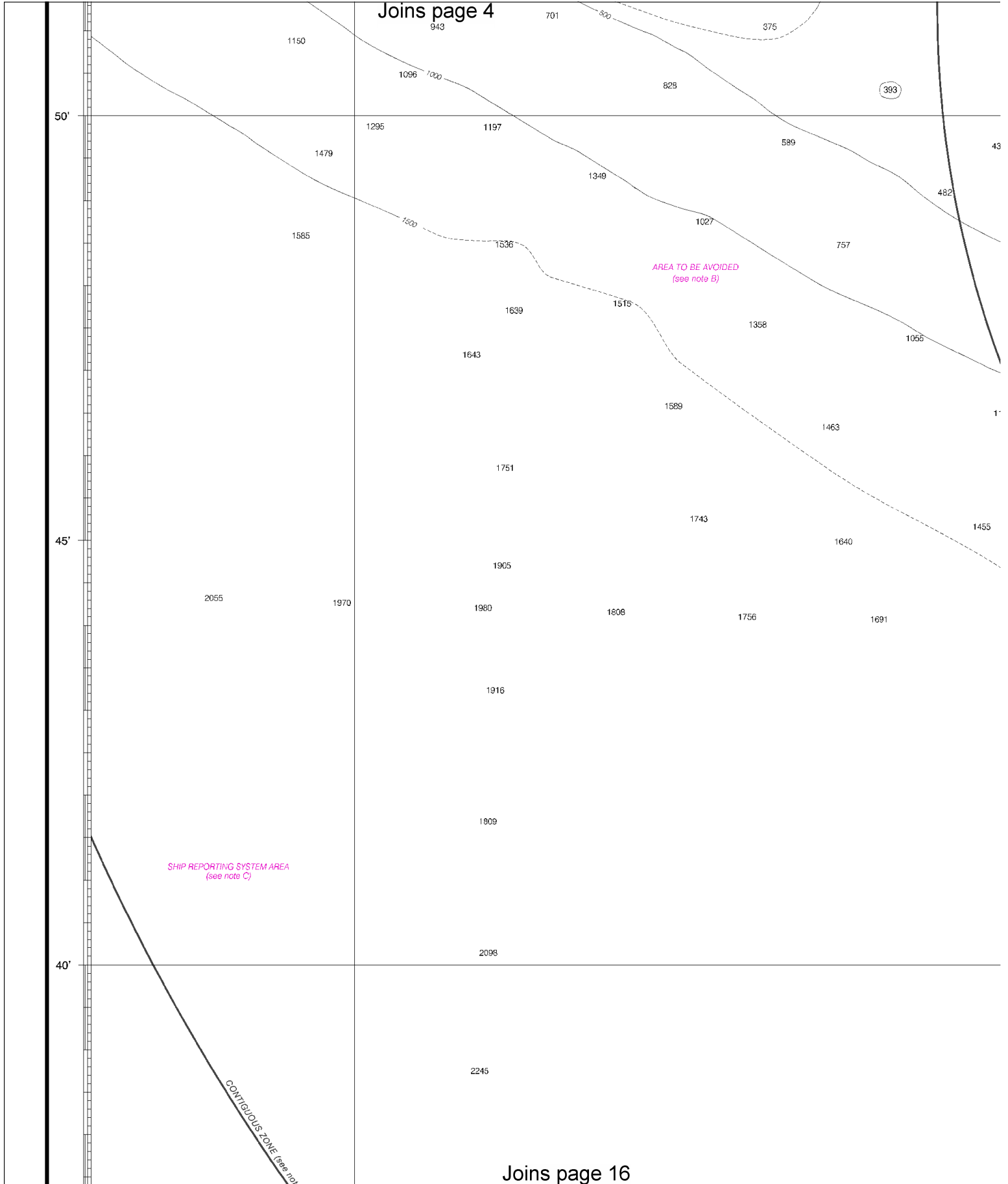
SCALE 1:80,000

See Note on page 5.



SOUNDINGS IN FATHOMS





16

[illegible]

Joins page 11

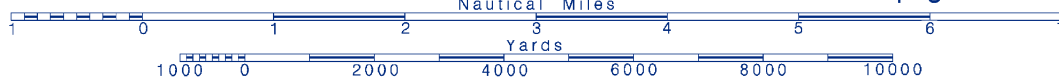
Joins page 18

Printed at reduced scale.

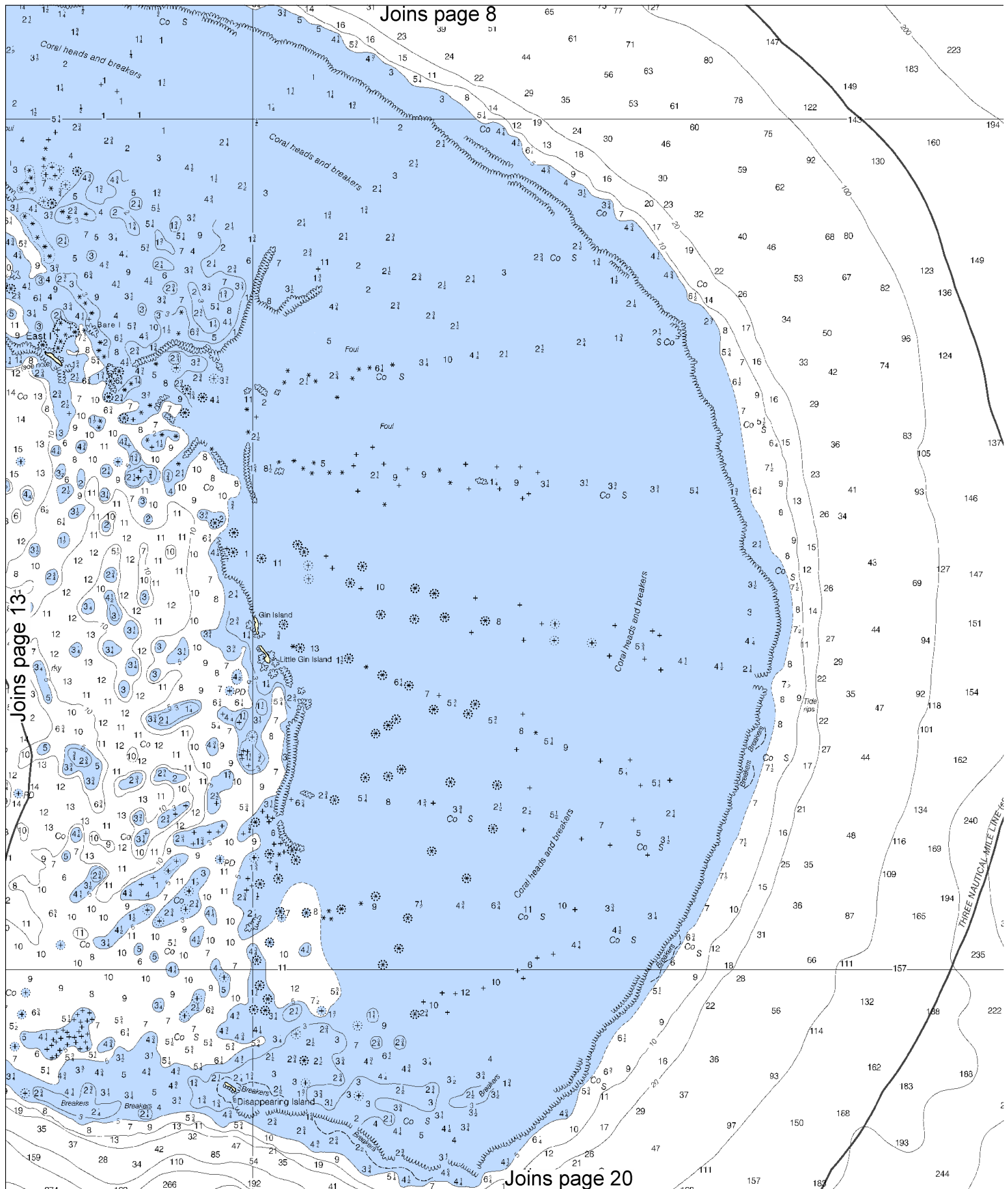
~~SCALE 1:80,000~~

See Note on page 5.

12







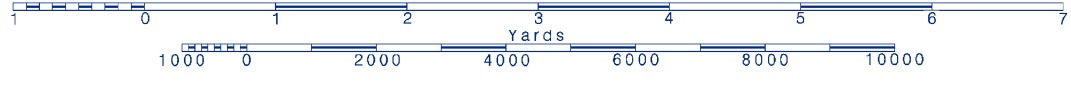
14

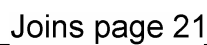


Printed at reduced scale.

SCALE 1:80,000

See Note on page 5.





2245

2416

2463

2435

2420

CAUTION

Recent hydrographic surveys do not exist in this area. The hydrographic surveys used for this chart did not achieve full bottom coverage, thus uncharted coral heads may exist. Uncharted areas of submerged reef of unknown depth may exist. Extreme caution should be exercised when navigating in this area.

HORIZONTAL DATUM

The horizontal reference datum of this chart is World Geodetic System 1984 (WGS 84), which for charting purposes is considered equivalent to the North American Datum of 1983 (NAD 83). The projection of this chart was shifted from a local datum by means of georeferenced satellite imagery and has not been confirmed by land-based geodetic methods.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

EAST ISLAND

East Island is marked by towers.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free) or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

COLREGS, 80.1410 (see note A)

International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

NOTE X

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

2563

2540

2572

2668

40'

35'



THE NATION'S CHARTMAKER SINCE 1807 2110

FRENCH FRIGATE SHOALS

Mercator Projection
Scale 1:80,000 at Lat 23° 44'

World Geodetic System 1984
(North American Datum of 1983)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

TIDAL INFORMATION

NAME	PLACE (LAT/LONG)	Height referred to datum of soundings (MLL)		
		Mean Higher High Water	Mean High Water	Mean Low Water
East Island Frigate Shoals	(23°47'N/166°13'W)	feet 1.4	feet 1.1	feet 0.2

NOTE: Chart was last revised: 4/92, 10/99, 12/02

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water level tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Apr 2007)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautica	G green	Mo moose oode	R TR radio to
Al alternating	IQ interrupted quick	N nun	Rt rotating
B black	iso isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	SI M statute m
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		Rn radiobeacon	Y yellow

Bottom characteristics:

Bls boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerg
ED existence doubtful	PA position approximate	Rep reported	
(1) Wreck, rock, obstruction, or shoal except clear to the depth indicated.			
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.			

HEIGHTS
Heights in feet above Mean High Water.

Additional information can be obtained at nauticalcharts.noaa.gov.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the U.S. Coast Guard, Geological Survey, and National Geospatial-Intelligence Agency.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

9th Ed., May / 07 ■ Corrected through NM May 05/07
Corrected through LNM Apr. 24/07

19401

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

This nautical chart has been designed to promote safe navigation. The Ocean Service encourages users to submit corrections, additions, or comments improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

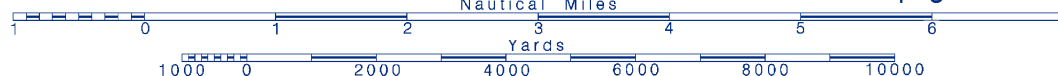
16



Printed at reduced scale.

SCALE 1:80,000

See Note on page 5.



ALLW)
an
later
t
:
levels,
by.

tower

3 miles

e

erged

The National
omments for
lional Ocean

2085

1800

2000

2045

2325

2410

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, Hawaii or at the Office of the District Engineer, Corps of Engineers in Honolulu, Hawaii.

Anchorage regulations may be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, Hawaii.

Refer to section numbers shown with area designation.

PARTICULARLY SENSITIVE SEA AREA

This chart falls entirely within the limits of a Particularly Sensitive Sea Area (PSSA). A PSSA is an environmentally sensitive area in which and around which mariners should exercise extreme caution. See U.S. Coast Pilot volumes for information regarding this area.

NOTE B
AREA TO BE AVOIDED

All vessels solely in transit should avoid the area (MSC IMO SN.1/Circ.263).

HAWAIIAN ISLANDS NATIONAL WILDLIFE REFUGE

The Hawaiian Islands from longitude 161° W to 176° W are part of the Hawaiian Islands National Wildlife Refuge, and under the jurisdiction of the U.S. Fish and Wildlife Service, Department of the Interior.

The islands and atolls in the refuge include Nihoa, Necker Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan Island, Lisianski Island, Pearl and Hermes Atoll. National Wildlife Refuge System regulations pertaining to these islands and atolls are contained in CFR 50, parts 25-32.

Entry to the refuge is strictly prohibited without prior approval from the Refuge Manager, Pacific Remote Islands National Wildlife Refuge Complex, U.S. Fish and Wildlife Service, 300 Ala Moana Blvd., Honolulu, Hawaii 96850.

The restrictions apply to all civilian and military agencies as well as individuals.

2525

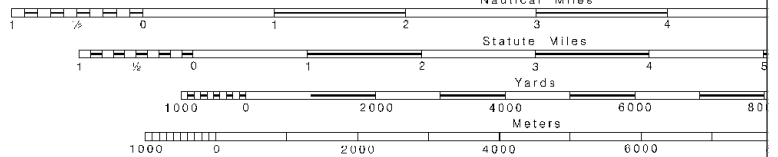
NOTE C
SHIP REPORTING SYSTEM

The following vessels entering or departing any U.S. port of place and in transit through the reporting area are required to report into the System: all vessels 300 gross tons or greater and all vessels in the event of a developing emergency. The following vessels in transit through the reporting area should report into the System: all vessels 300 gross tons or greater, fishing vessels, and all vessels in the event of a developing emergency. See MO N-1, Circ. 273. Information concerning the Ship Reporting System is also published in the U.S. Coast Pilot 7, Chapters 2 and 14, and updated through Notices to Mariners. Information may also be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, or at the Office of the District Engineer, Corps of Engineers, in Honolulu.

PAPAHĀNAUMOKUĀKEA
MARINE NATIONAL MONUMENT

The entire area of this chart lies within the boundaries of the Papahānaumokuākea Marine National Monument and the French Frigate Shoals Special Preservation Area. These are protected areas. See 50 CFR 404 or Chapter 2, U.S. Coast Pilot 7.

SCALE 1:80,000
Nautical Miles



166°30'

25'

20'

SOUNDINGS IN FATHOMS

NOTE A
Publications are published in Chapter 2, U.S. Coast Pilot volumes for information concerning the area. Information concerning the area may be obtained at the Office of the District Engineer, Corps of Engineers, in Honolulu, Hawaii or at the Office of the District Engineer, Corps of Engineers, in Honolulu, Hawaii.

NOTE B
The area shown with area designation is a Particularly Sensitive Sea Area (PSSA) which mariners should exercise caution in transit should avoid the area (MSC IMO 2002).

NOTE C
SHIP REPORTING SYSTEM
The following vessels entering or departing any U.S. port of call and in transit through the reporting area are required to report into the System: all vessels 300 gross tons or greater and all vessels in the event of a developing emergency. The following vessels in transit through the reporting area should report into the System: all vessels 300 gross tons or greater, fishing vessels, and all vessels in the event of a developing emergency. See MO SN 1, Circ. 273. Information concerning the Ship Reporting System is also published in the U.S. Coast Pilot 7, Chapters 2 and 14, and updated through Notices to Mariners. Information may also be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, or at the Office of the District Engineer, Corps of Engineers, in Honolulu.

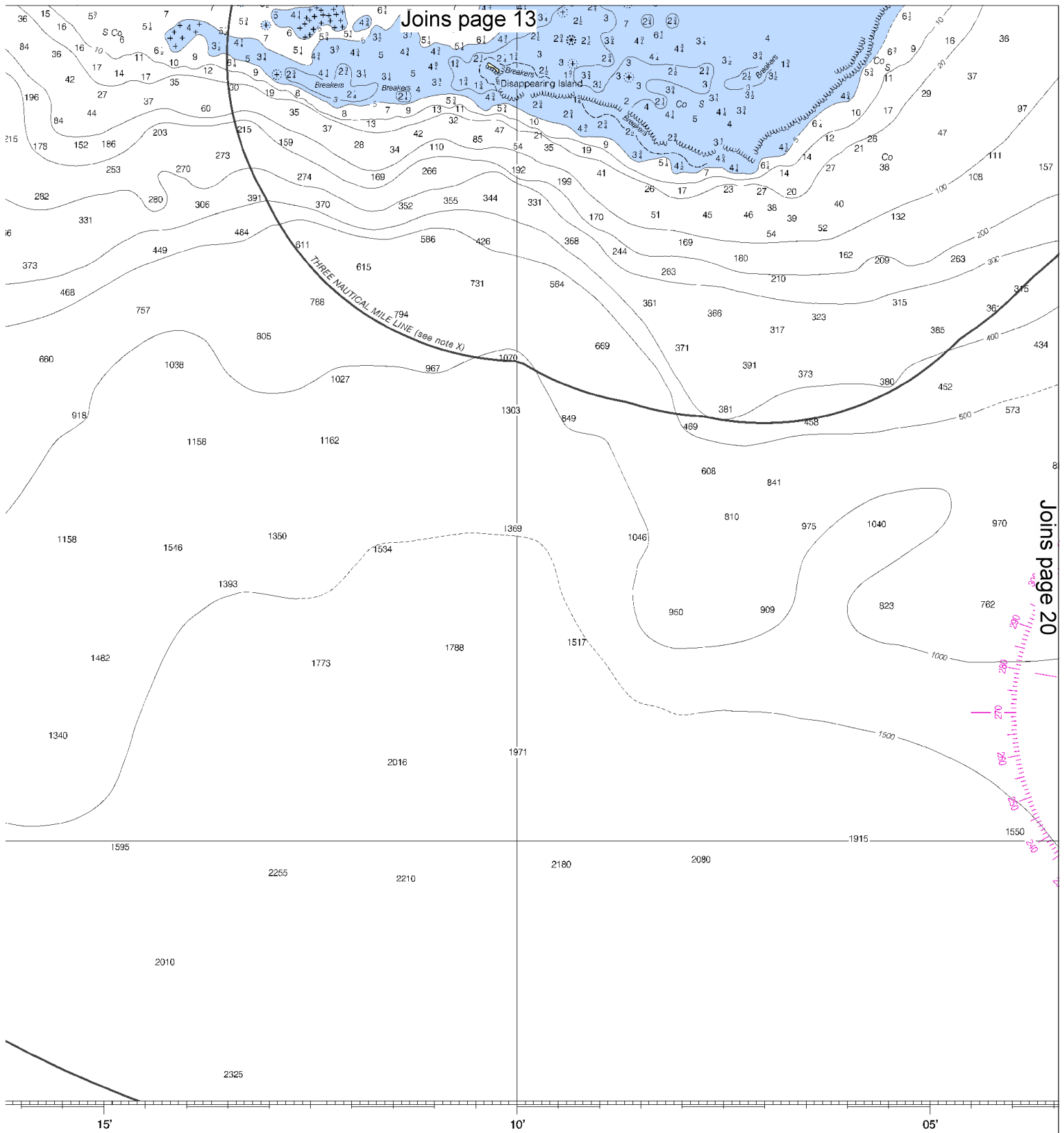
PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT
The entire area of this chart lies within the boundaries of the Papahānaumokuākea Marine National Monument and the French Frigate Shoals Special Preservation Area. These are protected areas. See 50 CFR 404 or Chapter 2, U.S. Coast Pilot 7.

25'

20'

SOUNDINGS IN FATHOMS

Published at the
U.S. DEPARTMENT OF
NATIONAL OCEANIC AND ATMOSPHERIC
NATIONAL OCEANOGRAPHIC
COAST AND GEODETIC SURVEY



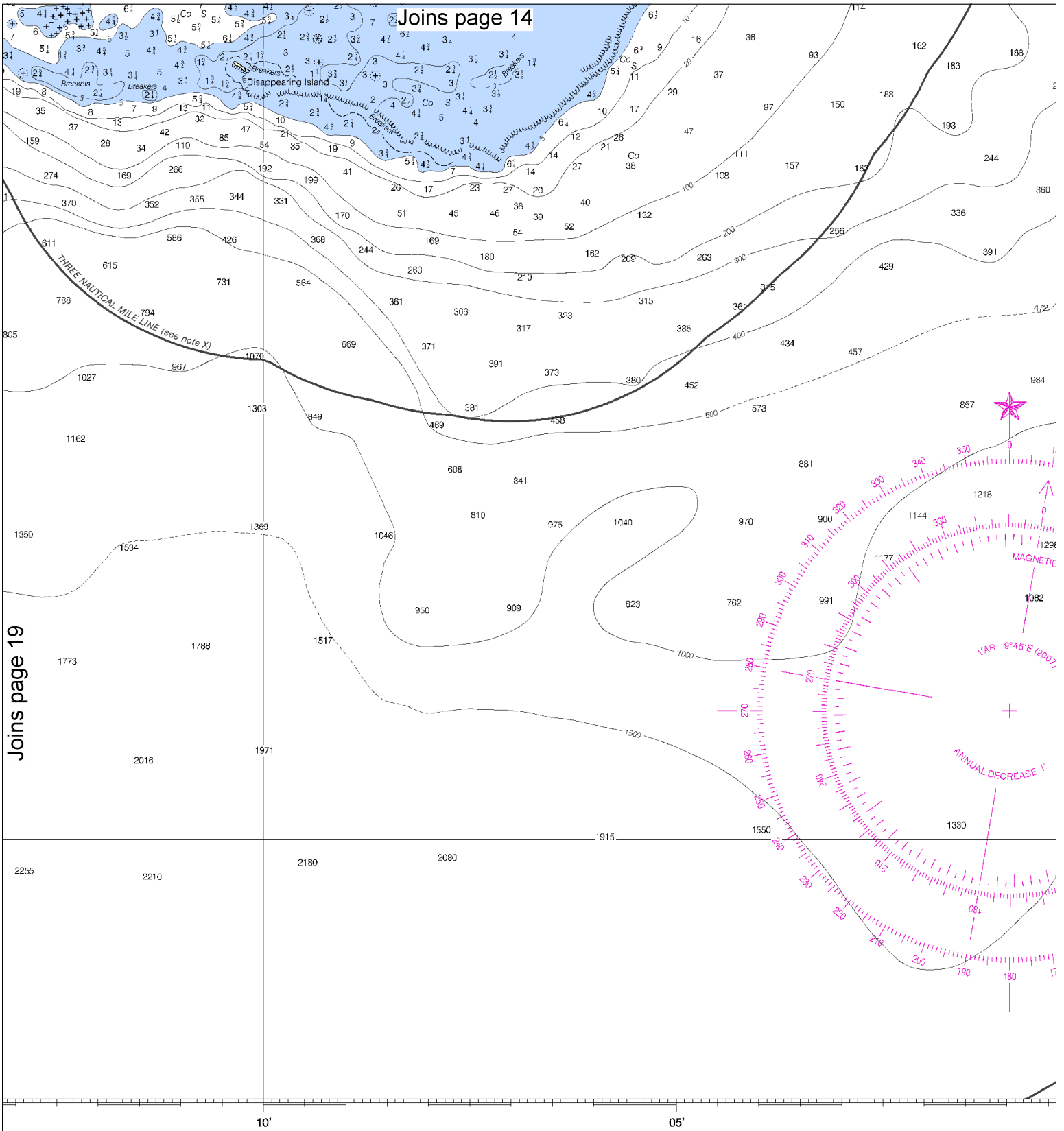
Joins page 13

Joins page 20

Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
HYDROGRAPHIC SURVEY

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or



PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.

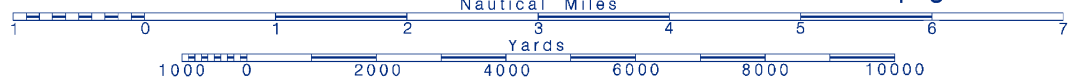
20

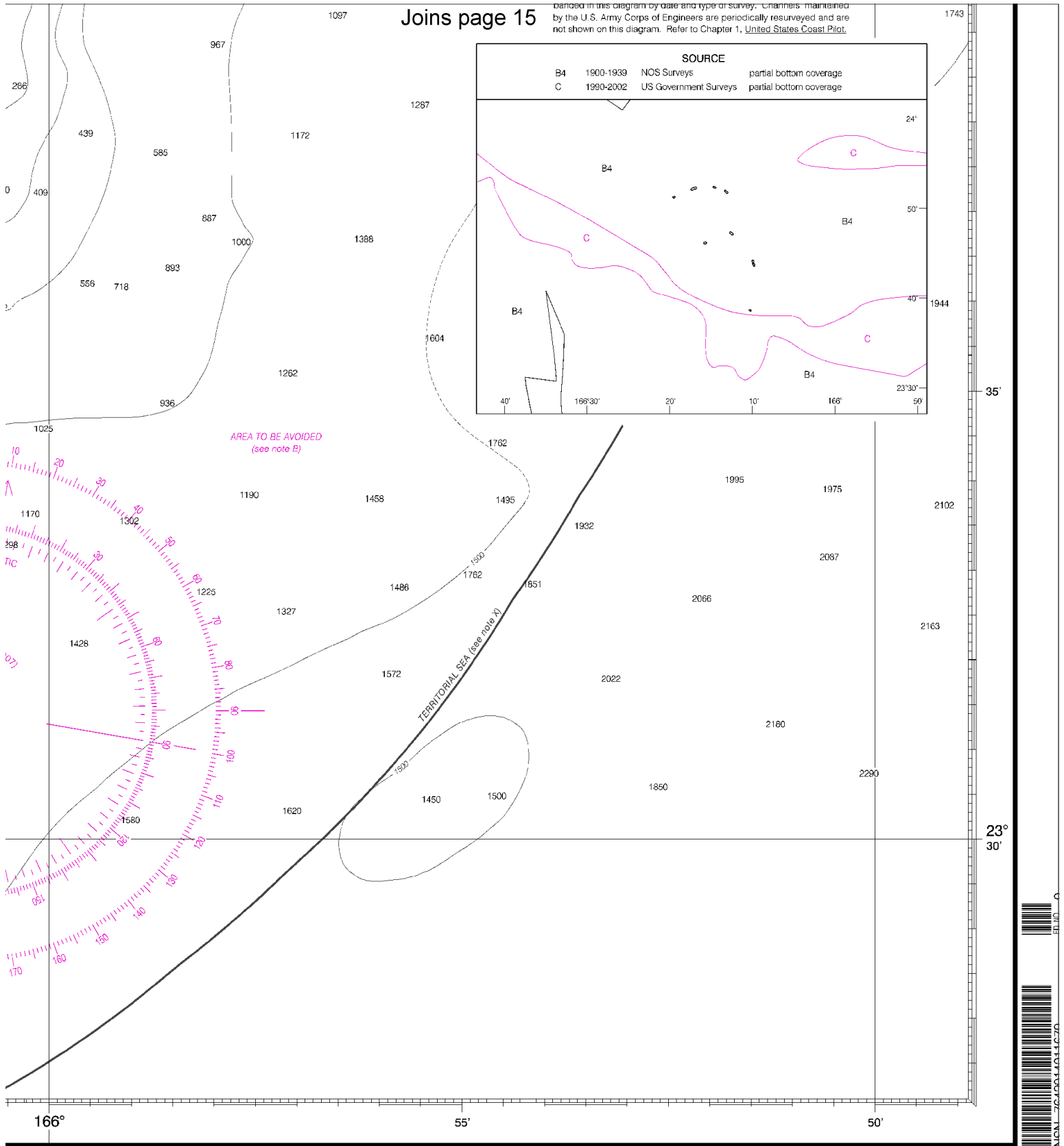


Printed at reduced scale.

SCALE 1:80,000

See Note on page 5.





FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

French Frigate Shoals
SOUNDINGS IN FATHOMS - SCALE 1:80,000

19401

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.

Coast Guard Search & Rescue – 510-437-3700

Coast Guard Search & Rescue – 808-541-2500

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENC[®]) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNC[™]) – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts[™] – BookletCharts[™] are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts[™] – PocketCharts[™] are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot[®] – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.